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FROM THE EDITORS OF HOBBY FARMS® MAGAZINE



# A Coop for All Seasons

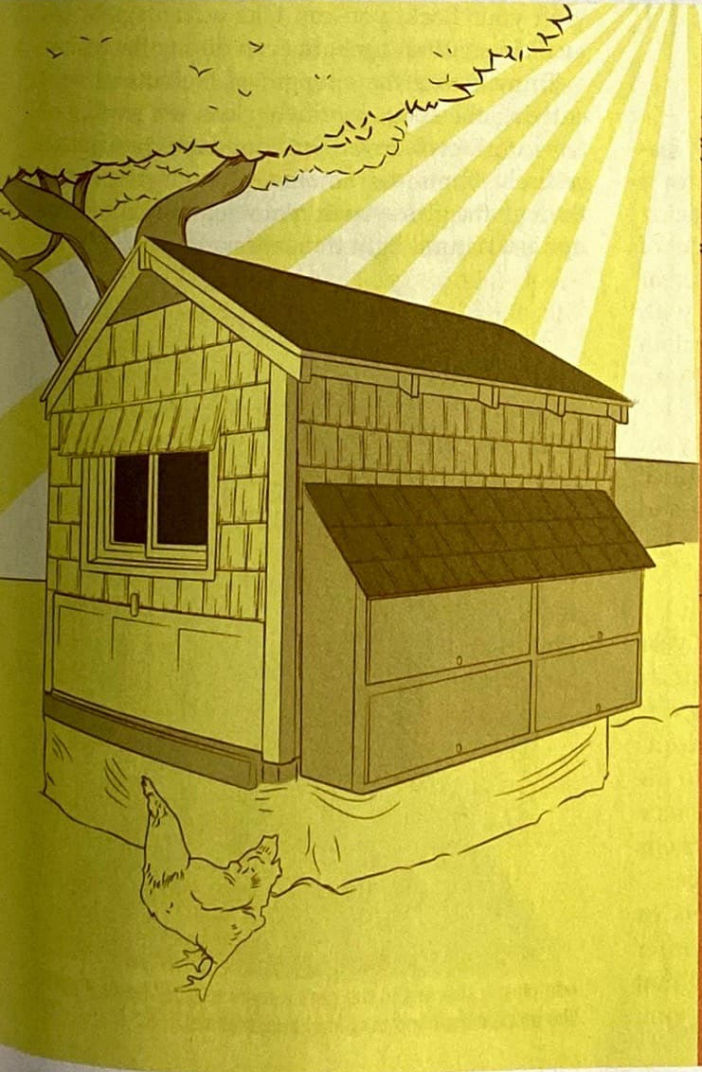


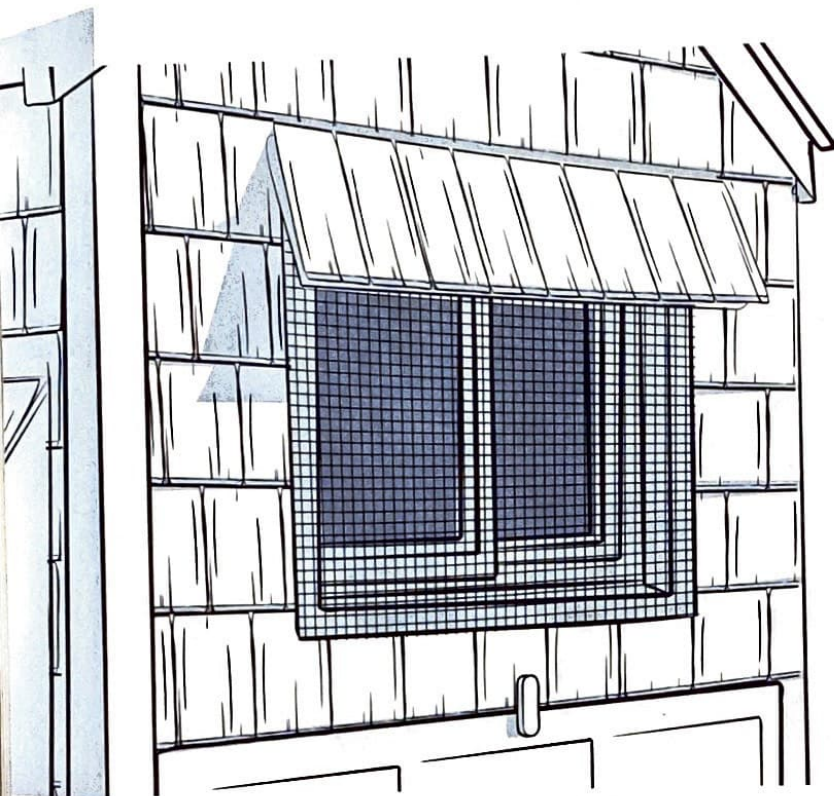
Learn how to weather-proof your chickens' abode for changing temperatures.

BY JENNIFER BURCKE

ILLUSTRATIONS BY TOM KIMBALL

**by** employing simple strategies and using readily available materials, you can build a coop that comfortably houses a flock of chickens throughout the year. With the four-season coop, you'll provide a secure environment during the harshest conditions the seasons can offer.





An adjustable awning controls the amount of light entering the coop through the south-facing window.

The four-season coop relies on three key features to provide a hospitable environment for a flock. These components include a south-facing window with a secure safety screen made of hardware cloth or other durable material, rear vents positioned opposite the window with secure interior screens made from hardware cloth or other durable material, and a door with an interior screen door.

You can modify each feature to meet your flock's needs during each season. With minimal effort, the coop can be kept more temperate and well-ventilated all year long.

## Winter

**Control temperature.** As the calendar year begins, chickens need protection from the winter snow and cold temperatures. Plastic sheeting acts as a barrier to keep out cold air and reduce drafts inside the coop. Attach the plastic sheeting to the exterior side of the screen door using strong tape such as duct tape. This ensures that the chickens can't ingest any small pieces of plastic or tape.

**Consider installing plastic on rear vents or doors that will not be used during the winter months.** We have two doors inside our coop that allow the hens to access their outdoor run.

During the winter, we close one of these doors to limit the amount of cold air entering the coop.

**Minimize precipitation.** Secure a tarp to the top of the exterior run using grommets or other methods to prevent snow and ice from accumulating inside the run. For further protection, add heavy-duty clear plastic to the sides of the run. The intense sunshine during the winter months will allow some heat to accumulate during the day, keep winter precipitation at bay and slightly warm the coop.

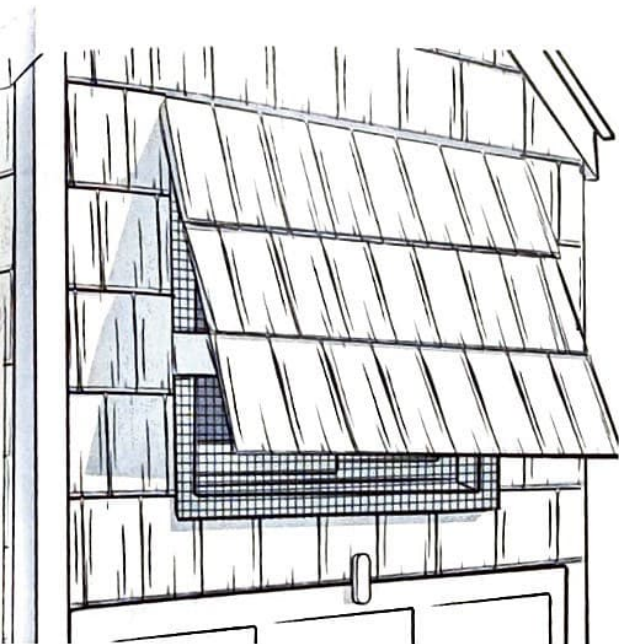
**Increase sunlight.** During the winter, the hours of natural sunlight fall to their lowest point of the year. Light is an important factor with respect to egg production. Winter's decrease in natural light signals to a hen that she should begin to lay fewer eggs or stop laying eggs completely.

Some chicken keepers choose to provide supplemental lighting in the coop while others allow their flock to follow Mother Nature's cue and have a break from egg production during the winter months (see "Supplemental Lighting" on page 71). No matter which method you choose to use with your flock, you can take advantage of the available natural sunlight even during the winter.

To maximize the strength of the natural light entering the coop, routinely clean the surface of any exterior windows. Dust buildup on a window severely limits the amount of sunlight passing through the glass panes; removing dust allows for optimal natural-light transmission.



Add plastic sheeting to the run's exterior to block harsh elements like precipitation and to control temperatures.



Consider installing an extendable awning to block harsh summer sunlight.

### Spring

**Watch temperatures.** As spring arrives and temperatures rise, coops require additional ventilation. Once the average daytime temperature has risen above 50 degrees, the plastic sheeting can be removed from the screen door and vents. On warmer days, the screen door and vents can be left open to help increase the volume of fresh air in the coop. On cooler days, keep exterior doors closed to protect the flock from precipitation and a potential chill.

**Block out rain.** Once the average temperatures become warmer, remove the clear plastic from the outdoor run's sides. Leave on the tarp secured to the run's top, however; it protects your flock from spring's drenching precipitation.

**Use less artificial light.** If you use supplemental lighting during the winter, use a timer to slowly reduce the hours of artificial light as the amount of natural daylight increases. Once the daylight hours have increased and your flock has returned to egg laying, gradually discontinue using supplemental light.

With minimal effort, the coop can be kept **more temperate** and well-ventilated all year long.

## One Window, Four Seasons

When my family and I constructed our coop in 2010, we used a collection of new and used materials. We repurposed many components and found new uses for them. One such item was the double-hung window we discovered in the old horse stall in our circa-1840 barn.

Initially, the window didn't fit into our coop design. It was too long to fit above the cleanout door we had included in the building plans. Then we realized that by turning the double-hung window on its side, we could transform it into a horizontal, sliding window that was perfectly sized for our new coop. It was a perfect fit for the southern side of the chicken coop's façade.

Once we had installed the window, we discovered that we needed to devise a plan to handle each season's impact on the interior of the coop. Spring rains often required someone to visit the coop and adjust the window panes to prevent water from entering the coop. Summer sun brought unwelcome heat to the inside of the coop, making the interior temperature dangerous for our flock. During the fall, strong breezes could create a chilling draft for our hens if allowed to pass through the open window.

We solved these challenges by designing an awning for the window. Once we had installed it during the summer, we realized that a smaller awning would be ideal for the other seasons. With two awnings at our disposal, we had the ability to offer our hens the most protection from the elements all year long. You can easily employ the use of an awning over your coop's window by constructing a version with repurposed building supplies or those leftover from coop construction. — J.B.

## Venting the Coop During the Winter

It might seem counterintuitive to vent a chicken coop during winter, but fresh air is incredibly beneficial to your flock. It improves the air quality inside and creates a healthier atmosphere for the chickens living there. An inadequately vented coop can quickly become overcome by both ammonia and high humidity.

Chicken waste contains high levels of ammonia and moisture. Ammonia can irritate a chicken's respiratory tract. Excess moisture from chicken feces and the simple act of chickens exhaling can build up and create a very humid environment. This excess humidity becomes trapped in an unvented coop and makes a flock more susceptible to frostbite from the freezing droplets of moisture.

Leave a small vent or an access door slightly ajar in order to provide an adequate flow of fresh air. Even a small flow of outside air can help to dissipate both ammonia and excess moisture from the inside of the coop.

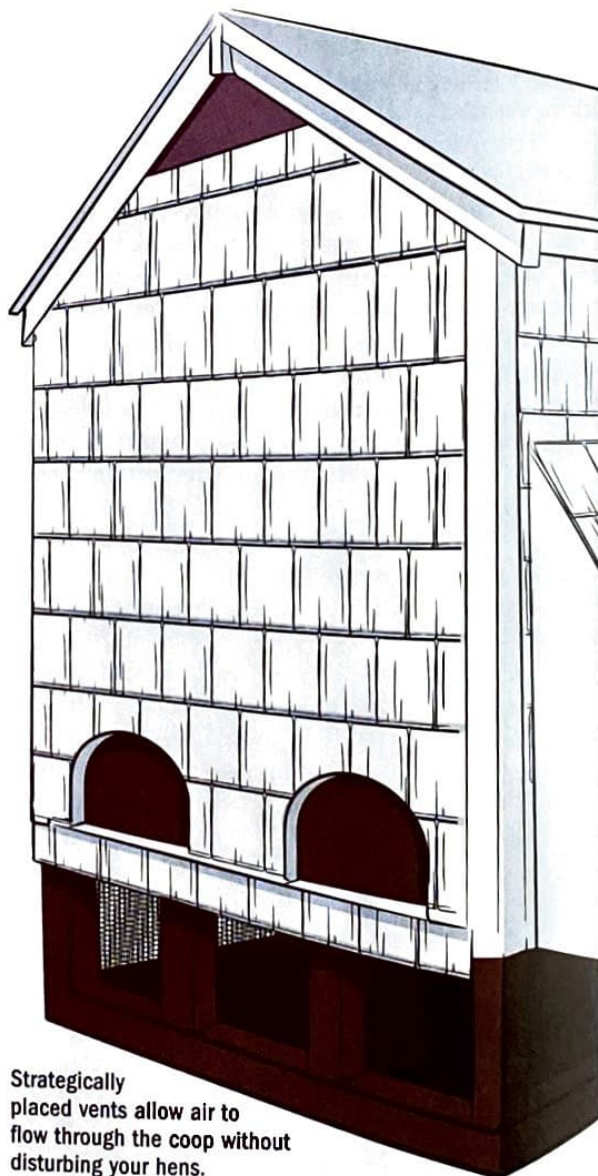
Take care to prevent your coop from getting drafty, however. Although cold-hardy chickens do not mind colder temperatures, they prefer not to be directly in the path of a chilling draft as it passes through their coop. If possible, position the window and vents below the level of the roost in your coop. You'll take advantage of your flock's natural desire to roost at night and keep your chickens warm enough to thrive during the winter months.

If the roost is positioned above the direct path of the fresh air that enters the coop, chickens can enjoy the warmer atmosphere in the higher elevation of the coop. Because the warm air in the coop will rise, they will enjoy the warmest temperatures found in their coop while roosting through the night. — J.B.

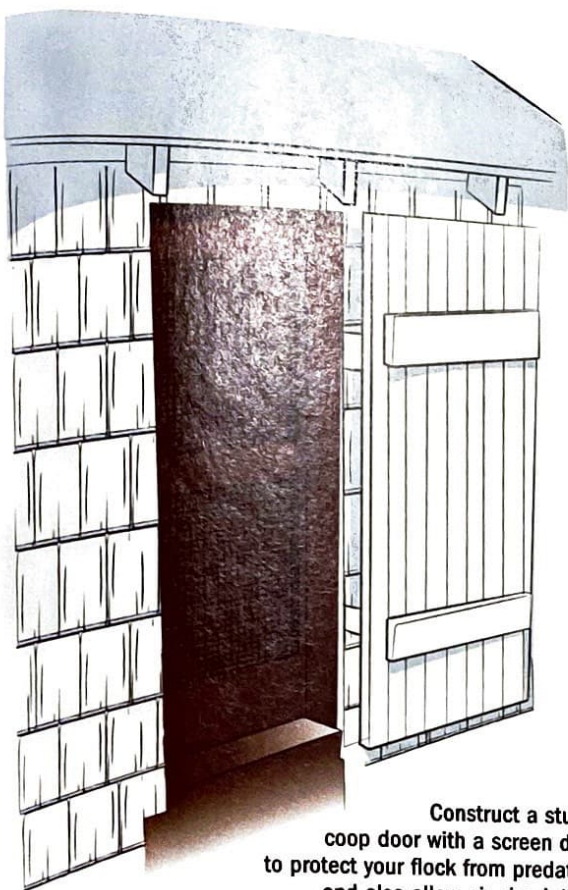
### Summer

**Air out.** To provide your chickens with relief from summer's increasing heat, make sure that the coop receives adequate fresh air. Completely remove the window panes from the window frame to maximize air flow through the coop. Enlarge rear vent openings, and use a screen door.

**Provide shade.** Invite shade into your coop to dramatically reduce the interior temperature. An awning offers an effective addition. If your run does not receive natural shade, the plastic tarp can be left in place and used as a shade cloth. Edible plants also provide shade to the run along with a healthy treat for the flock. Sunflowers, marigolds and nasturtiums make excellent choices for their beauty and popularity with chickens as a fresh summer treat.



Strategically placed vents allow air to flow through the coop without disturbing your hens.



Construct a sturdy coop door with a screen door to protect your flock from predators and also allow air circulation.

## Fall

**Decrease air flow.** Gradually prepare your coop for the colder fall weather. Reinstall window panes, and position them to allow a moderate flow of fresh air to enter without chilling the residents of the coop. The goal of ventilation during fall is to provide some ventilation without allowing the residents of the coop to catch a chill. Leaving windows and vents slightly open will help you to achieve this goal. When left slightly open, the vents will allow a gentle flow of cool air to pass through the coop.

**Prepare supplemental lighting.** If you use supplemental lighting, make sure that it functions properly. As the hours of natural daylight subside, the light and the timer extend the hours of light enjoyed by the chickens inside the coop.

**Maintain plants.** Remove spent vegetation from the exterior run before it succumbs to frost so that more sunshine can enter the run. Reinstall clear plastic sheeting on the walls of the exterior run in preparation for winter's precipitation. Chickens will enjoy spending their days in the warmer environment provided by the enclosed run.

**T**ransition seamlessly from season to season by making these changes to the four-season coop. The chickens living inside your coop will enjoy a protected and hospitable environment throughout the year and reward you with fresh eggs in the nest box. PF

# Supplemental Lighting

Light is a powerful, determining factor in a hen's egg production. Chicken keepers might tend to a flock with their family's egg production in mind, but their hens are laying eggs with producing a family in mind. Because a hen lays her eggs in order to hatch baby chicks, she depends on nature to predict which season lies ahead.

In the fall, when the amount of natural daylight begins to decrease, mature birds will begin to molt in preparation for the impending winter. Molting allows a chicken to replace their feathers and be better suited for thriving in the cold temperatures that winter brings.

Between molting and the reduced hours of daylight, a hen might lay fewer eggs during the fall and winter or stop laying eggs. The reason for that change is simple: A hen instinctively wishes to avoid raising chicks during the coldest and most inhospitable time of the year.

To encourage egg production, many chicken keepers choose to provide supplemental lighting in their coops. By providing a few hours of artificial light inside the coop, a hen can complete her molting cycle and return to egg production even during the winter.

The flock should still be allowed at least 10 hours of darkness inside the coop. They prefer to roost and sleep in darkness and should be allowed to do so. Providing too many hours of light can lead to chickens that are stressed from their inability to properly rest at night.

The use of a small-wattage compact fluorescent light bulb and an outdoor timer can regulate the hours that the interior of the coop is lit. Using both items allows the chicken keeper to safely and effectively provide a few hours of light without disturbing natural chicken behaviors. — J.B.

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*Jennifer Burcke is a writer and fifth-generation New England farmer who lives with three generations of her family at 1840 Farm in New Hampshire. She shares their journey on her blog at [www.1840farm.com](http://www.1840farm.com)*